

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-implemented method for providing predictive information to a human user during the course of conducting an interactive session with a customer, during which interactive session the human user uses prediction results to an application system comprising one or more software applications that run in a computing environment during an interactive session with a user, the application system connected to communicate with a prediction engine, the method comprising:

during the course of the interactive session, the application system sending receiving a first request to the prediction engine to perform a first prediction determination of a probability that the customer will take a predefined action, the first request including electronic communication that includes a first input value set from the application system comprising one or more software applications that run in the computing environment;

in response to the first request, the prediction engine using the first input value set to perform the first prediction determination, electronically storing first state information generated as part of the first prediction determination, and providing to the application system for use by the human user a first prediction result of the first prediction determination;

selecting a first decision tree node by traversing one or more nodes of a decision tree using the first input value set;

using the first decision tree node and the first input value set to compute a first prediction result;

sending a second electronic communication that includes the first prediction result back to the application system;

electronically storing state information generated from the computation of the first prediction result;

at a later point in time during the interactive session with the customer when additional information about the customer becomes available, the application system sending a second request to the prediction engine to perform a second prediction determination of a probability that the customer will take the predefined action, the second request including receiving a third electronic communication that includes a second input value set comprising at least information available at the application system after the sending of the first request; and from the application system;

in response to the second request, the prediction engine using both of the stored first state information and the second input value set to perform the second prediction determination, the first state information being used to avoid calculations being performed in the second prediction determination that would duplicate calculations that were already performed in the first prediction determination, and providing to the application system for use by the human user a second prediction result of the second prediction determination.

using the stored state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the stored state information;

using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result; and

- sending a fourth electronic communication that includes the second prediction result to the application system.

2. (Canceled)

3. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using a [[the]] decision tree along with the stored state information and the additional set of input values to compute the second prediction result.

4. (Canceled)

5. (Previously Presented) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values.

6. (Previously Presented) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values.

7-10. (Canceled)

11. (Currently Amended) The computer-implemented method of claim 1, wherein the first [[stored]] state information includes intermediate probability information.

12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer churn.

13-31. (Canceled)

32. (New) The computer-implemented method of claim 1, wherein the second input value set is provided to the application system by the human user as a result of interaction by the human user with the customer.

33. (New) A computer-readable storage medium comprising computer-executable instructions that when executed perform a computer-implemented method for providing predictive information to a human user during the course of conducting an interactive session with a customer, during which interactive session the human user uses an application system comprising one or more software applications that run in a computing environment, the application system connected to communicate with a prediction engine, the computer-implemented method comprising:

    during the course of the interactive session, the application system sending a first request to the prediction engine to perform a first prediction determination of a probability that the customer will take a predefined action, the first request including a first input value set;

in response to the first request, the prediction engine using the first input value set to perform the first prediction determination, electronically storing first state information generated as part of the first prediction determination, and providing to the application system for use by the human user a first prediction result of the first prediction determination;

at a later point in time during the interactive session with the customer when additional information about the customer becomes available, the application system sending a second request to the prediction engine to perform a second prediction determination of a probability that the customer will take the predefined action, the second request including a second input value set comprising at least information available at the application system after the sending of the first request; and

in response to the second request, the prediction engine using both of the stored first state information and the second input value set to perform the second prediction determination, the first state information being used to avoid calculations being performed in the second prediction determination that would duplicate calculations that were already performed in the first prediction determination, and providing to the application system for use by the human user a second prediction result of the second prediction determination.

34. (New) The computer-readable storage medium of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using a decision tree along with the stored state information and the additional set of input values to compute the second prediction result.

35. (New) The computer-readable storage medium of claim 33, wherein the first input value set includes at least two input values.

36. (New) The computer-readable storage medium of claim 33, wherein the second input value set includes at least two input values.

37. (New) The computer-readable storage medium of claim 33, wherein the first state information includes intermediate probability information.

38. (New) The computer-readable storage medium of claim 33, wherein the first and second prediction results each specify a probability of customer churn.

39. (New) The computer-readable storage medium of claim 33, wherein the second input value set is provided to the application system by the human user as a result of interaction by the human user with the customer.